

University of Mumbai

Program: CIVIL ENGINEERING

Curriculum Scheme: Rev2019

Examination: SE Semester III

Course Code: CEC304 and Course Name: APDB

Time: 2 hour 30 minutes

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Line up to which the plinth of a building adjoining a street may be law-fully extended is called?
Option A:	Building line
Option B:	Building boundary
Option C:	Building extend
Option D:	Building plan
2.	_____ used to mean the regulation of admitting more or less sunshine in the room.
Option A:	Elegance
Option B:	Roominess
Option C:	Circulation
Option D:	Aspect
3.	The term _____ is used to mean the link or access or movement between the various rooms and floors of building.
Option A:	Flexibility
Option B:	Prospect
Option C:	Circulation
Option D:	Elegance
4.	A _____ is a set of rules that specify the standards for constructed objects such as buildings and non-building structures.
Option A:	Building code
Option B:	Building bye-laws
Option C:	IS code
Option D:	Procedure
5.	In the classroom minimum window area required is
Option A:	10% of floor area
Option B:	15% of floor area
Option C:	20 % of floor area
Option D:	25% of floor area
6.	In a school, no.of drinking water foundations required are
Option A:	1 per 30
Option B:	1 per 40

Option C:	1 per 50
Option D:	1 per 60
7.	In hospital ward minimum ventilation area required is
Option A:	10% of floor area
Option B:	20% of floor area
Option C:	25% of floor area
Option D:	30% of floor area
8.	As per National building code, the minimum width of staircase in public building is
Option A:	1.0 m
Option B:	1.2 m
Option C:	1.5 m
Option D:	1.8 m
9.	The perspectives of all horizontal lines inclined at 45 degrees to the picture plane converge to a distance points on the
Option A:	ground line
Option B:	perpendicular axis
Option C:	horizon line
Option D:	center of vision
10.	When an object has its two faces inclined to the picture plane, its perspective is called _____ perspective also called two point perspectives.
Option A:	Parallel
Option B:	Oblique
Option C:	Angular
Option D:	Vanishing

Q2	Solve any One	20 marks
A	<p>It is proposed to construct a high school building in a district place as (G+1) R.C.C. Framed structure with the following facilities</p> <p>(a) No. of Class rooms =10 no.(each having 75 sq.m. carpet area)</p> <p>(b) No. of Labs =4 no. (75sq.m. each)</p> <p>(c) No. of Drawing rooms =3 no. (60 sq.m. each)</p> <p>(d) Computer room =60 sq.m.</p> <p>(e) Principal's room =45 sq.m.</p> <p>(f) Office =75 sq.m.</p> <p>(g) Library –cum-reading Room =75sq.m.</p> <p>(h) Gymkhana =100 sq.m.</p> <p>(i) Canteen =60 sq.m.</p> <p>(j) Indoor games =100 sq.m.</p>	

	<p>(k) Assume floor to floor height as 3.5m provide adequate passages, Staircases, Toilet/sanitary units as per the bye-laws.</p> <p>Draw the following according to some suitable scale.</p> <p><u>GROUND FLOOR PLAN (double line plan)</u> 15 marks</p> <p><u>FIRST FLOOR PLAN (single line plan)</u> 05 marks</p>
B	<p>Type of Building-Hospital</p> <p>For G+1 framed structure. The requirement are as follows</p> <p>A) waiting hall -24 sq.m</p> <p>B) Consulting room (2 nos.) -12 sq.m</p> <p>C) General ward - 50 sq.m</p> <p>D) Store room -24 sq.m</p> <p>E) Office- 22 sq.m</p> <p>F) medical Store -14 sq.m</p> <p>G) nurse room -20sq.m</p> <p>H) operation theatre -50 sq.m</p> <p>3 nos. of toilet for each gents and ladies</p> <p>Provide adequate passage, stairs, entrance etc.</p> <p><u>GROUND FLOOR PLAN (double line plan)</u> 15 marks</p> <p><u>FIRST FLOOR PLAN (single line plan)</u> 05 marks</p>

Q3	Solve any one	20 marks
A	Write short notes on the following (Five marks each)	
	(a) Green Building	
	(b) Master plan	
	(c) uses of computers in building drawing	
B	(d) Green belt	
	<p>Draw the Two-point perspective with the following data</p> <p>Size of Dining hall=20m x 12 m.</p> <p>Plinth height=0.6 m</p> <p>Floor to floor height =4.0m</p> <p>parapet wall=1m</p> <p>Assume the eye level at 2.5 m. from Ground level</p>	

Q4	Solve any one	20 marks
A	It is proposed to construct a Residential Bungalow as (G+1) R.C.C framed structure	

	<p>on a plot of 40 m.X45 m. with Floor-Floor height of 3.3 m. Following are the requirements:</p> <p>(i) Living Room = 22 Sq.m. (ii) Drawing Room = 20 Sq.m. (iii) Master's Bed Room (with A.T) = 20 Sq.m. (iv) Kitchen = 12 Sq.m. (v) Dining = 16 Sq.m. (vi) Bed Room = 16 Sq.m. (vii) Guest Room = 14 Sq.m. (viii) Pooja Room = 12 Sq.m.</p> <p>Provide Toilets, passages etc. as per the Bye-laws. Draw the following with asuitable scale:</p> <p>(a) GROUND FLOOR PLAN (15 Marks) (b) LINE PLAN OF FIRST FLOOR (5Marks)</p>
B	Draw 2-Point perspective for the building, you have proposed in Q.No.4A